

**VERSION WITH MARKINGS TO SHOW CHANGES
MADE TO THE APPLICATION**

In the Claims

Claims 1 has been amended as follows:

1. (Amended) An array of oligonucleotide probes for detecting a polymorphism in a target nucleic acid sequence using Principal Component Analysis, said array comprising at least one detection block of probes, said detection block including a first group of probes that are complementary to said target nucleic acid sequence except that the group of probes includes all possible monosubstitutions of positions in said sequence that are within n bases of a base in said sequence that is complementary to said polymorphism, wherein n is from 0 to 5, and a second and third group of probes complementary to marker-specific regions upstream and downstream of the polymorphism in the target nucleic acid sequence, wherein the third group of probes differs from the second set of probes at single bases corresponding to known mismatch positions.